

WHAT IS CLAIMED IS:

1. An optical disk medium (6) having a spiral recording track (8),  
wherein:

said optical disk medium comprises a plurality of tilt detection areas (7) formed at a plurality of radial positions on said medium, each of said tilt detection areas having a plurality of special marks (SM) for detecting a plurality of tilts of said medium in a single round of said medium.

2. An optical disk medium according to claim 1, in which said spiral recording track is divided into a plurality of zones (9) in a radial direction of said medium, wherein:

each of said tilt detection areas is located within an area (10) which is formed in the vicinity of a zone boundary between said zones and which is not used in recording data.

3. An optical disk medium according to claim 1, in which said spiral recording track having a predetermined linear recording density is divided into a plurality of segments (11) having a predetermined segment length and added with address information, wherein:

each of said detection areas is located on the recording track in the vicinity of a radial position at which the length of the recording track in a single round of said medium. corresponds to an integral multiple of said segment length.

4. An optical disk medium according to claim 1, wherein:

a plurality of grooves are periodically formed in a radial direction of said medium, said optical disk medium having, as said recording track, said grooves or a plurality of lands between said grooves or both of said grooves and said lands;

each of said special marks being formed by first and second coupling

portions (3 and 4) arranged in close proximity to each other in a tracking direction along which said recording track extends, said first coupling portion (3) being formed as a coupling groove having a depth substantially equal to that of said grooves and a length in said tracking direction which is longer than twice a groove pitch of said grooves, said first coupling portion coupling a particular one of the grooves and one of two grooves adjacent to said particular groove on opposite sides thereof, said second coupling portion (4) being formed as a coupling groove having a depth substantially equal to that of said grooves and a length in said tracking direction which is longer than twice said groove pitch, said second coupling portion coupling said particular groove and the other of said two grooves.

5. An optical disk medium according to claim 1, wherein:

a plurality of grooves are periodically formed in a radial direction of said medium, said optical disk medium having, as said recording track, both of said grooves and lands between said grooves;

each of said special marks being formed by first and second coupling portions (3 and 4) arranged in close proximity to each other in a tracking direction along which the recording track extends, said first coupling portion (3) being formed as a coupling land having a height substantially equal to that of said lands and a length in said tracking direction which is longer than twice a groove pitch of said grooves, said first coupling portion coupling a particular one of said lands and one of two lands adjacent to said particular land on opposite sides thereof, said second coupling portion (4) being formed as a coupling land having a height substantially equal to that of said lands and a length in said tracking direction which is longer than twice said groove pitch, said second coupling portion coupling said particular land and the other of said two lands.

6. An optical disk recording/reproducing apparatus for recording or reproducing data on an optical disk medium, said optical disk medium

comprising:

a plurality of grooves as a recording track; and

a plurality of special marks (SM), each of said special marks being formed by first and second coupling portions (3 and 4) arranged in close proximity to each other in a tracking direction along which the recording track extends, said first coupling portion (3) coupling a particular one of said grooves and one of two grooves adjacent to said particular groove on opposite sides thereof, said second coupling portion (4) coupling said particular groove and the other of said two grooves, wherein:

said apparatus detects a medium tilt of said medium from the change in reflected light amount at each of said first and said second coupling portions when an optical spot follows said recording track.

7. An optical disk recording/reproducing apparatus according to claim 6, wherein:

tilt control is carried out by the use of an average of the medium tilts detected at the special marks in a single round of said medium.

8. An optical disk recording/reproducing apparatus according to claim 6, wherein:

tilt control is carried out by the use of a detected value of the medium tilt in a closest tilt detection area on an inner side of said recording track when said recording track is subjected to a recording operation or a reproducing operation.

9. An optical disk recording/reproducing apparatus for recording or reproducing data on an optical disk medium, said optical disk medium comprising:

a plurality of lands as a recording track; and

a plurality of special marks (SM), each of said special marks being formed by first and second coupling portions (3 and 4) arranged in close proximity to each other in a tracking direction along which said recording track

extends, said first coupling portion (3) coupling a particular one of said lands and one of two lands adjacent to said particular land on opposite sides thereof, said second coupling portion (4) coupling said particular land and the other of said two lands, wherein:

said apparatus detects a medium tilt of said medium from the change in reflected light amount at each of said first and said second coupling portions when an optical spot follows said recording track.

10. An optical disk recording/reproducing apparatus according to claim 9, wherein:

tilt control is carried out by the use of an average of the medium tilts detected at the special marks in a single round of said medium.

11. An optical disk recording/reproducing apparatus according to claim 9, wherein:

tilt control is carried out by the use of a detected value of the medium tilt in a closest tilt detection area on an inner side of said recording track when said recording track is subjected to a recording operation or a reproducing operation.